

Our Lady Star of the Sea



Maths Policy

Date: March 2021

Review: March 2023

Intent

At Our Lady Star of the Sea Primary School the teaching of maths is geared towards enabling each child to develop their learning and achieve their full potential. We endeavour to not only develop the mathematics skills and understanding required for later life, but also to foster an enthusiasm and fascination about maths itself. We aim to increase pupil confidence in maths so they are able to express themselves and their ideas using the language of maths with assurance. We want the children to see mathematics as being relevant to their world and applicable to everyday life as well as being something that they will need as they move on through their school life and ultimately to the world of employment.

As children become fluent in the language of mathematics and become increasingly able to reason and explain their thinking mathematically they become increasingly able to solve problems in a range of contexts, noting connections between areas of maths and proving their answers by using a wide range of mathematical thinking.

Our aim is to ensure that all children:

- Become FLUENT
- REASON and EXPLAIN mathematically
- Can SOLVE PROBLEMS

The National Curriculum states:

"Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment.

A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject."

Aims and Objectives:

The national curriculum for mathematics aims to ensure that all pupils:

become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language

can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions. (National Curriculum July 2014)

Children need to be regularly exposed to increasingly complex problems to solve, which allow them to apply their maths knowledge. In doing so they are encouraged to develop an argument and line of enquiry which they can prove and justify using mathematical vocabulary.

This includes the ability to break down problems, both routine and non routine, into a series of steps.

At Our Lady Star of the Sea Primary School we teach maths in a way that:

- creates a lively, exciting and stimulating environment in which the children can learn maths
- promotes the concept that acquiring maths knowledge and skills provides the foundation for understanding the world around them
- develops mental strategies
- encourages children to use mathematical vocabulary to reason and explain
- allows time for partner talk in order to stimulate and develop a curiosity for maths
- challenges children to stretch themselves and take risks in their learning
- ensures children in Key Stage 1 are secure in their understanding of number and number relationships
- delivers maths in line with National Curriculum guidelines

Implementation

We use a variety of curriculum resources, including the National Curriculum Programs of Study, White Rose Maths Hub schemes of work, Nrich and NCETM (National Centre for Excellence in the Teaching of Mathematics) resources and Classroom Secrets. These are underpinned with a clear long term plan which ensure continuity and progression in the teaching of mathematics.

Our Calculation Policy details methods used to teach calculation and progression in addition, subtraction, multiplication and division, offering staff practical methods and examples for each method.

The curriculum is delivered by class teachers. Children are taught in class groups from Foundation Stage to Year 6. In all classes children are taught in a variety of groupings (whole class, groups, pairs, one to one) relevant to the task in hand and work is differentiated in order to make it accessible and challenging.

Where appropriate groups/individual children are supported by Learning Support Assistants.

The school is using a mastery approach to teaching which has been customised to meet the needs of our children. Staff are kept up to date on current thinking, new teaching methodologies and ideas by the subject leader through staff meetings and Inset. CPD will be available where possible for staff who need to improve their understanding of the requirements of the new national curriculum, new methodologies and assessment/testing arrangements.

Planning and Assessment:

Teachers plan and deliver lessons that suit the individual learning styles of the children within the group. They use their professional judgement and use of formative assessment to ensure a flexible approach is adopted which recognises the need for pace of learning within the classroom. Children are given the opportunity to engage in fluency, reasoning and problem solving activities on a daily basis to demonstrate their understanding. In order to inform planning and to assess children's progress, teachers will carry out a range of summative and formative assessments and keep a record of the achievement of the end of year objectives. Mental maths activities will be carried out regularly throughout the whole of Key Stage 1 and Key Stage 2 to

improve children's mental agility. Times Tables are assessed through the 'Times Tables Rockstars' scheme and children in Y2 and KS2 have a daily times table workout as well as having access to their own online challenge area within the website.

Children are provided with feedback either verbally or through written marking in line with the school's marking policy. Often, in order to clarify understanding of a concept, children will be asked to respond to feedback, this is completed by the children at the beginning of the next lesson.

Inclusion: In line with the School's Inclusion Policy each child has an equal entitlement to all aspects of the Maths curriculum and to experience the full range of Maths activities. Therefore, in delivering Maths, care will be taken to ensure that all learning needs are met to ensure all children keep up with the learning and catch up needs are also met.

Homework:

Homework (as per our Homework Policy) is given out each week alongside accessing Times tables Rockstars at home.

Homework will usually consolidate and support current classwork and should be accessible to all learners.

The role of the Mathematics Lead:

The role of the Mathematics Lead is to:-

- Prioritise improvements for the teaching and learning of mathematics across the school and contribute to the school improvement plan, in consultation with the Headteacher and Governing Body, driving forward the improvement of mathematics teaching and progress and achievement of learners.
- Track the progress of identified groups of children and be involved in a thorough evaluation of Mathematics looking at trends over time, value added from baseline predictions to end of Key Stage Assessment results and report findings to the Headteacher and Governing Body.
- Audit provision for mathematics across the school in terms of teaching and learning, resources, standards on a regular basis
- Lead insets and CPD activities to support staff in developing areas of mathematics where they feel less confident
- Support teachers and learners in delivery of the 'hard to teach, hard to learn' areas of mathematics
- Read widely around pedagogy relating to the learning and teaching of mathematics
- Provide 'expertise' to assist staff in the delivery of the curriculum

- Keep updated in Mathematical developments through appropriate in-service training and Network meetings
- Evaluate on a regular basis the policy and scheme of work to ensure they form the basis of practice of Mathematics within the school
- Ensure that appropriate resources are available to ensure children are able to learn with a hands on concrete approach